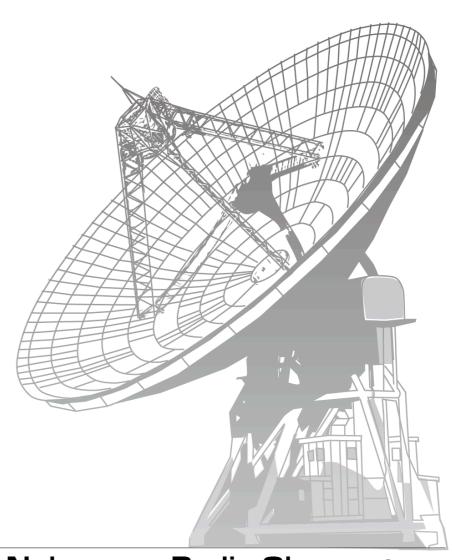


NRO Open-use 2021-2022

Umemoto, Tomofumi (NRO)





Nobeyama Radio Observatory





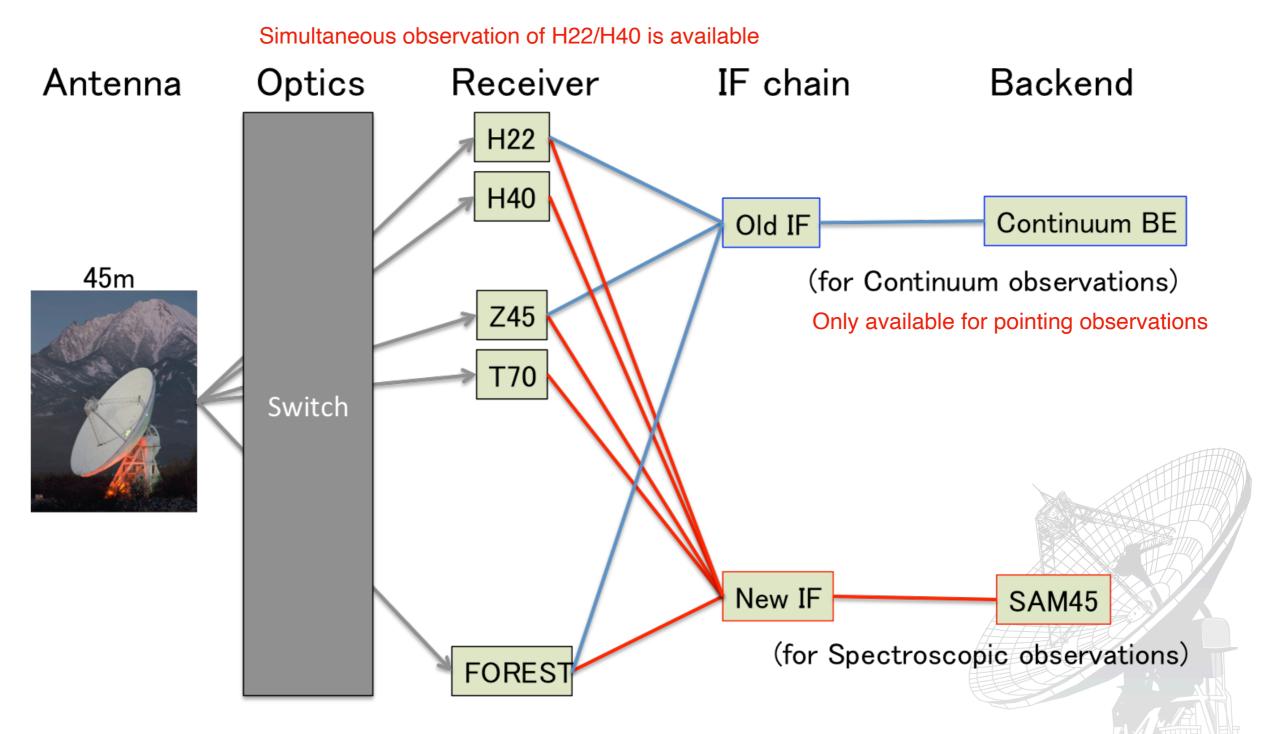
Call for Proposals

- 1400 hrs for open-use including GTO and supplemental time
- H22, H40, Z45, T70 and FOREST open
- Only one call for proposals
- Only Regular and GTO Programs
- Only weekdays: from Mon.(9:00 JST) to Sat.(9:00 JST) including national holidays
- Six observing LST slots in units of eight hours
- All observations are carried out through Remote observations from Mitaka, ASIAA/Taiwan, KASI/Korea and universities/institutes in Japan





2020-2021 System



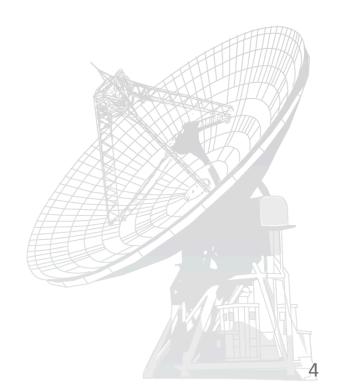
ALMA/NRO/ASTE Users Meeting





Mm/sbmm TAC members (2020-2022)

- Chair: Shinya Komugi (Kogakuin Univ.)
- Vice Chair: Fumitaka Nakamura (NAOJ)
- Min-Young Lee (KASI/Korea)
- Ya-Wen Tang (ASIAA/Taiwan)
- Sachiko Onodera (Meisei Univ.)
- Oct 8th, 2021 (TAC meeting)







Open-Use: Schedule

8/1	Call for Proposal	
9/1	Deadline	
9/12	Send proposals to referee	
10/8	TAC	
12/1	Start NRO 45-m open-use	
	(No open-use at year-end and New Year Holidays)	H
3/31	End NRO 45-m open-use	

We have one deadline for Regular and GTO programs.

ALMA/NRO/ASTE Users Meeting





Open-Use: Proposals

2021-2022 (2020-2021)

Category	Submitted	Accepted
Regular	26 (25)	10 (13)
Large >200 hr	- (0)	- (0)
GTO	1 (0)	1 (0)
Total	27 (25)	11 (13)
Foreign countries	10 (5)	3 (2)

Proposals for 2021 was 27, but we received 25 for 2020

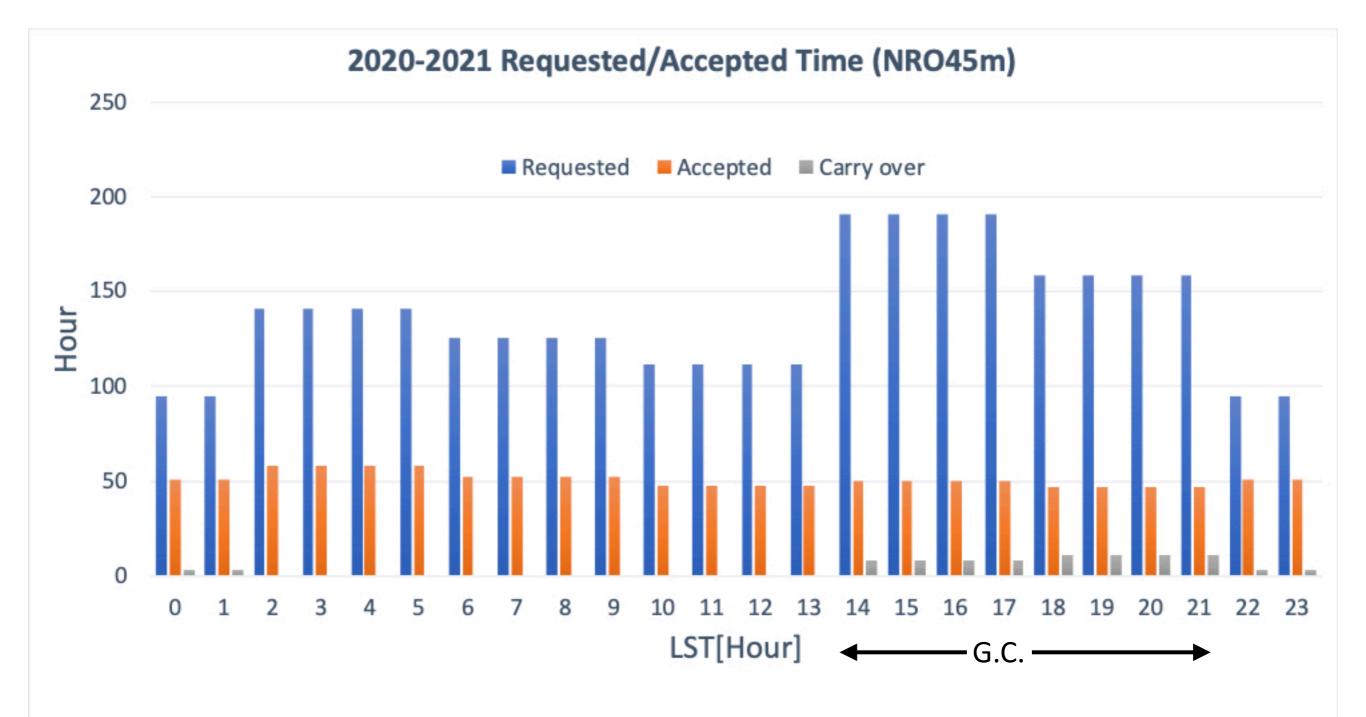
Proposals from foreign countries for 2021 was 10, and we received 5 for 2020

ALMA/NRO/ASTE Users Meeting





LST range distribution 2020

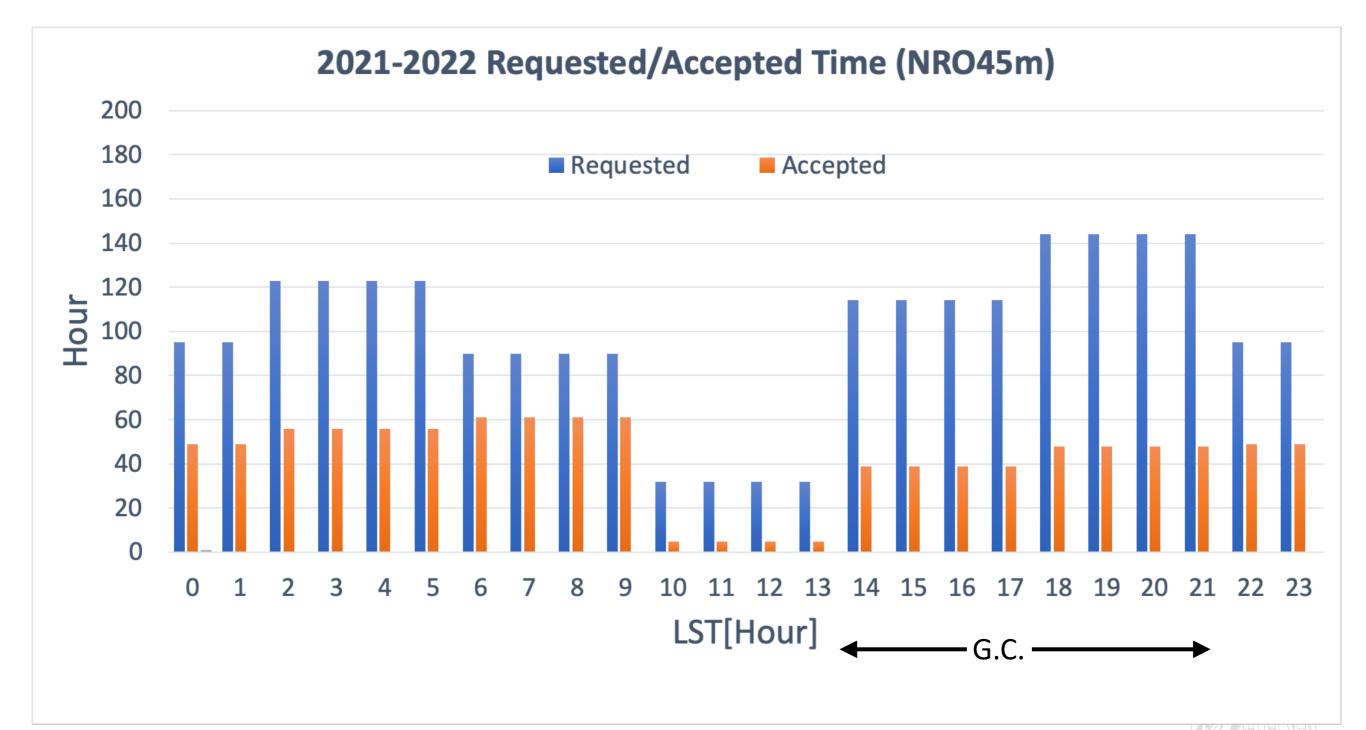








LST range distribution 2021

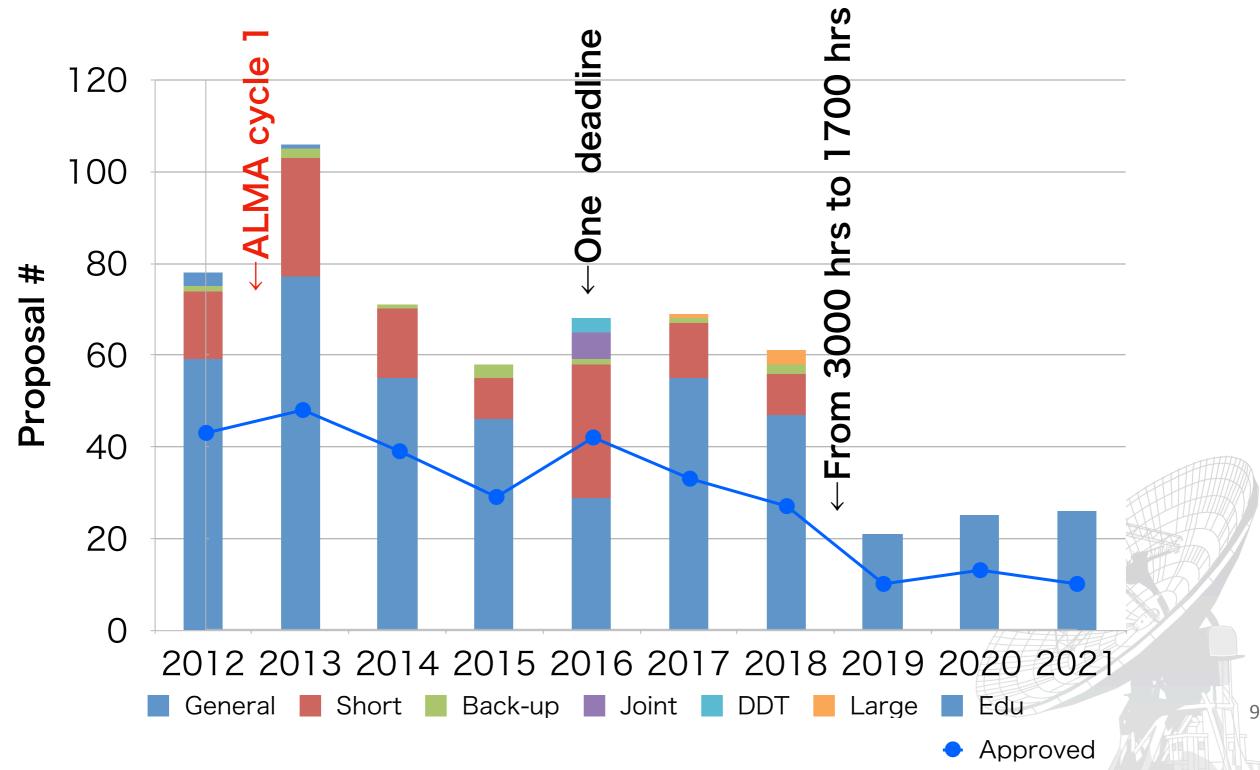


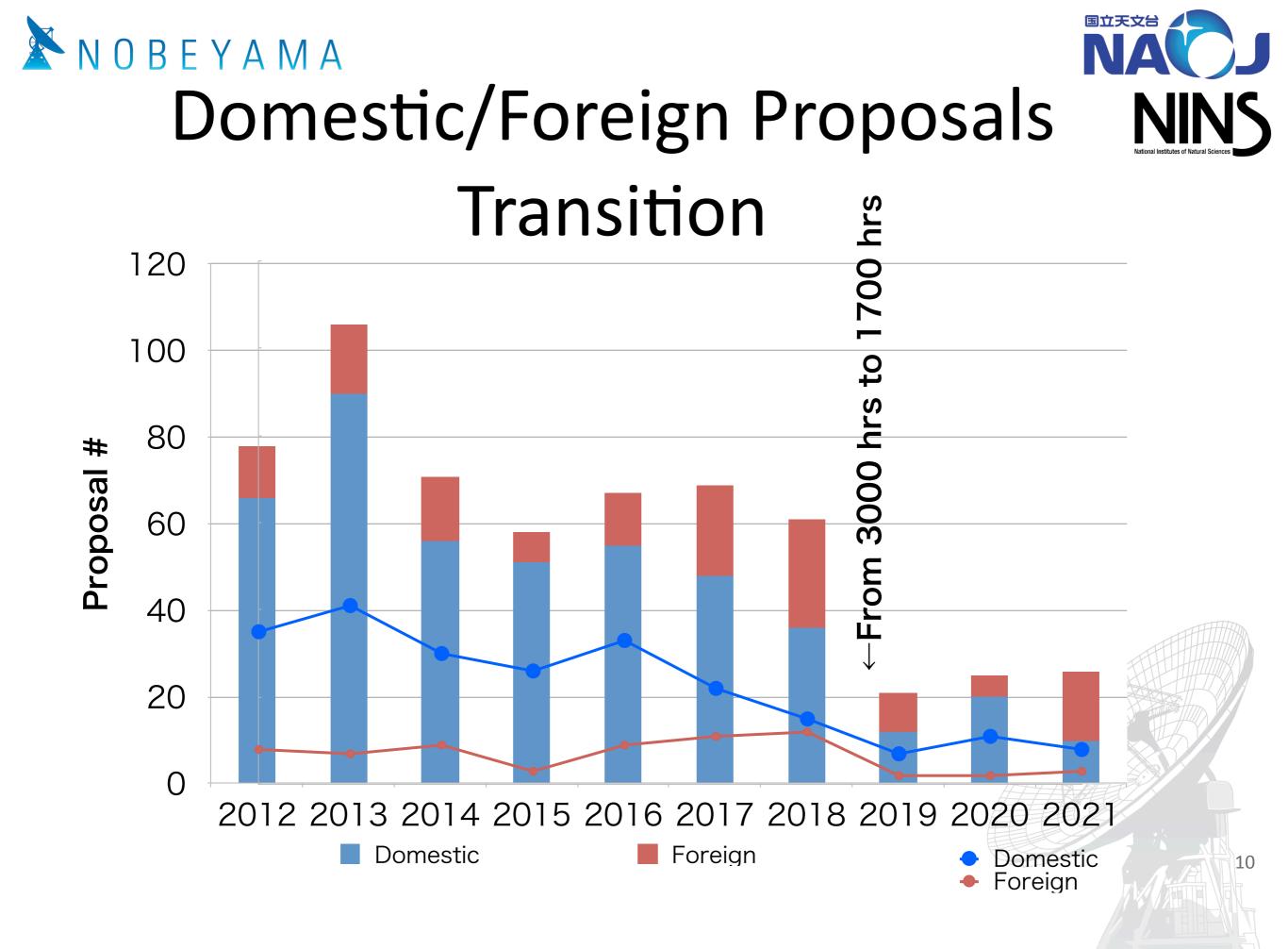






Proposals Transition







160

120

80

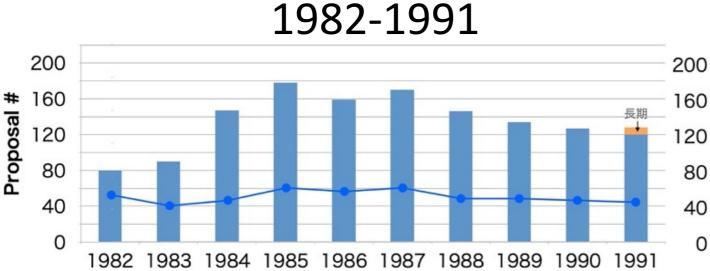
40

0

Rainbow

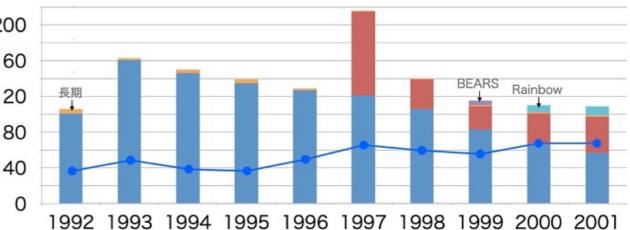
Proposal #

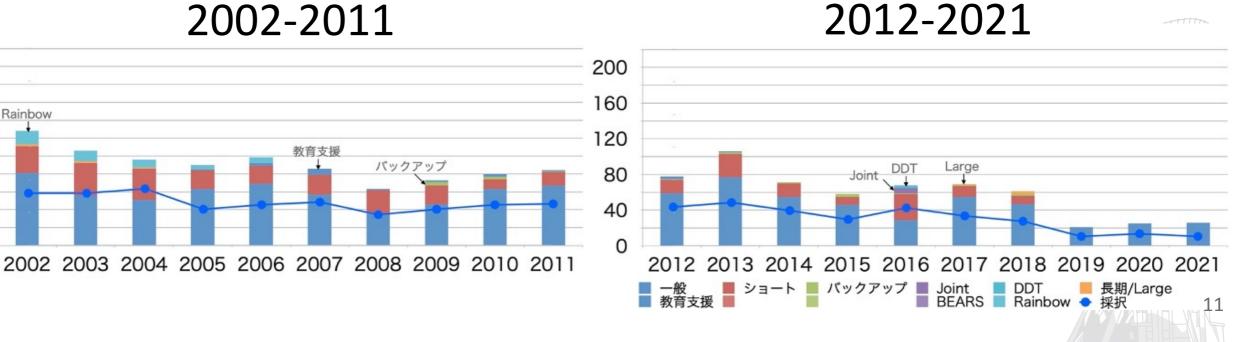




1992-2001

国立天文台





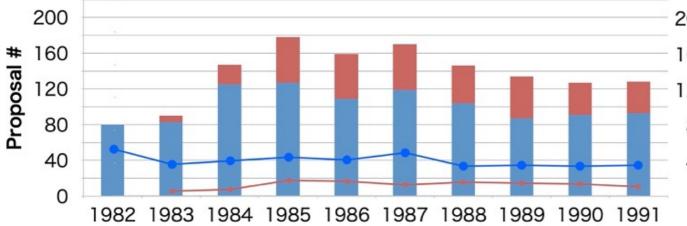
2002-2011

教育支援



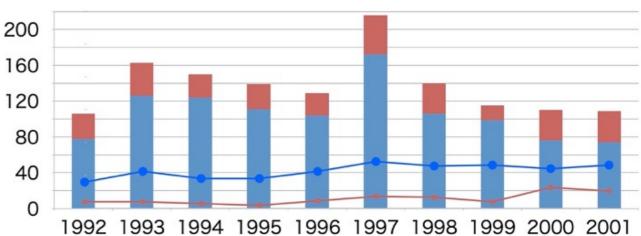
Domestic/Foreign Proposals TransitionNINS over 40 yrs

1982-1991

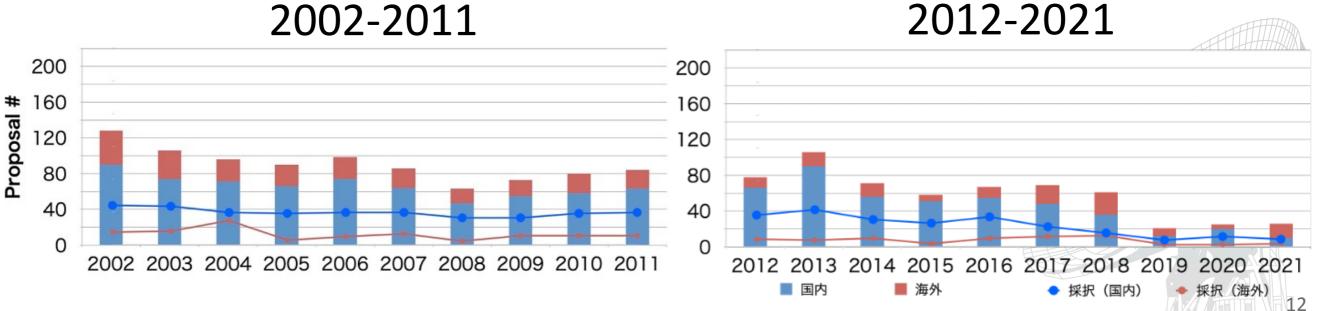


1992-2001

国立天文台



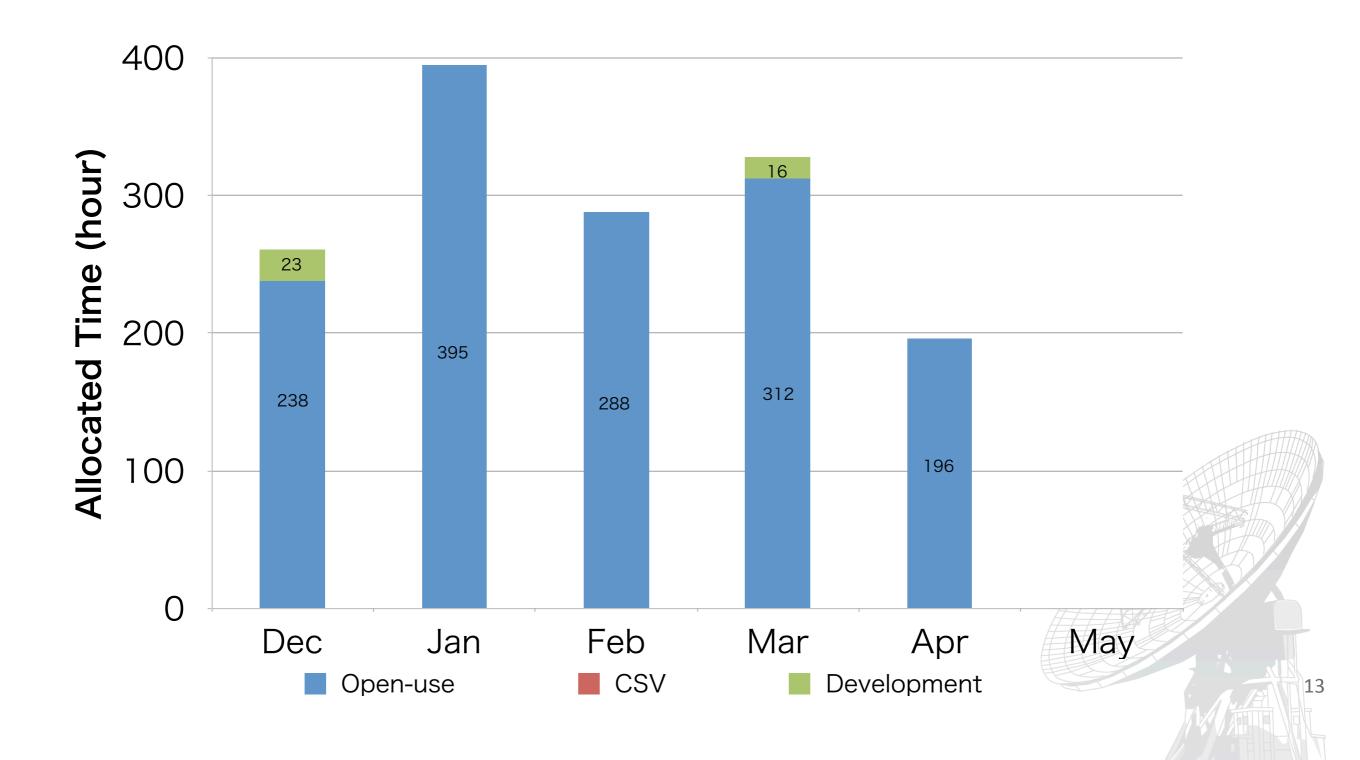
2002-2011







Observation Statistics 2020-2021

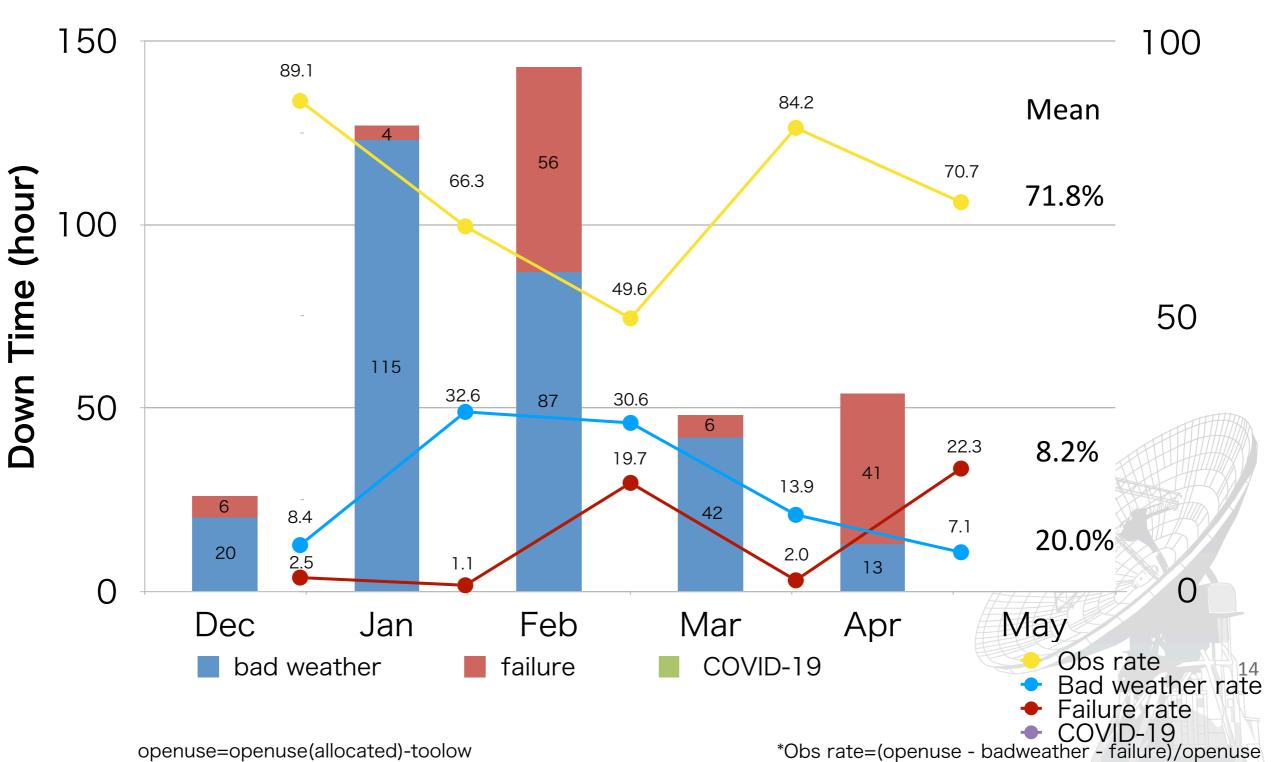






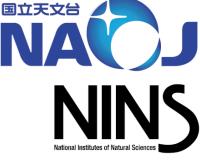
Observation Statistics 2020-2021

Rate(%)





Snow Monitor & Snow Alert



Applications Places MERGE MONITOR (mrg1_server) Wed Nov 4, 09:59 • 👫 🐠 🖒 TROLLER ACTIVITIES Weather Alert Mirror _ ■NO RESPONSE H22 mode now ANTSV 0LSV 2020/11/04/09:58 Check where I am TDLE MLPPS TKB CONNECTING Forest H22 H40 SYNTHE G SYNTHE I SYNTHE F WAIT EXECUTION T70 Z45 ΤZ The system detected SNOWFALL ! SYNTHE_N SYNTHE_0 SYNTHE_ EXECUTING H22+H40 TZ+H22+H40 TROUBLE SYNTHE W YNTHE TZ+H22 TZ+H40 You must stop your observation. MERGE MONITOR (mrg1_server) _ _ > And, you must set the antenna position in safety. B 1.462768 -0.093813 B ONLINE: ary=A6 if=6000000000.000000 base-if=6000000000.000000 vel= -5000.000000 vrad= B ONLINE: ftrk=43200000000.000000 B 1.462768 -0.093813 B ONLINE: ary=A7 if=6000000000.000000 base-if=600000000.000000 vel= -5000.000000 vrad=-AGREE B ONLINE: ftrk=43200000000.000000 2020-11-01 03:04:30.410 ZCOSIC NYOMYAQI VEB 1.462768 -0.093813 km/s GHz 2020-11-01 03:04:30.410 zcos1c nromrgd1 DEB ONLINE: ary=A8 if=6000000000.000000 base-if=6000000000.000000 vel= -5000.000000 vrad=km/s Old Firefox km/s 2020-11-01 03:05:30.429 zcos1c nromrgd1 INF LOGID=20201101030327 end 2020-11-01 03:05:30.430 zcos1c nromrgd1 DEB accept: Interrupted system call km/s km/s COSMOS MONITOR MMC EXECUTE PANEL Work Station COSMOS User-Interface _ OI no 2020-11-03 02:52:20.763 INF STOP CLOSE RXT MMC Group : csv20 2020-11-03 02:52:20.763 INF STOP CLOSE MMC SAI 2020-11-03 02:52:20.763 INF STOP CLOSE SYNTHE_L OLD NEW Project : effic Change Observer 2020-11-03 02:52:34.879 INF STOP 2020-11-03 02:52:34.879 INF Instruction file stopped. 01 OPEN CLOSE 2020-11-03 02:52:34.879 INF Instruction file is already closed. SAM Mode select:
Normal
Batch 2020-11-03 02:52:52.325 INF OPEN MMC COLD нот 2020-11-03 02:52:52.329 INF ACCEPT MMC List View chk File name : marh23 2020-11-03 02:52:52.330 INF EXECUTE MMC CMD(OPN) LD1 & Beam Switch 2020-11-03 02:52:52.330 INF EXECUTE MMC CMD(OPN) 2020-11-03 02:52:52.330 INF ACCEPT MMC LD1-OPEN LD1-CLOSE TUNING 2020-11-03 02:52:52.370 INF END END MMC 2020-11-03 02:53:51.564 INF END END MMC BS-OPEN BS-CLOSE 2020-11-03 03:09:26.397 INF EXECUTE MMC CMD(CLS) 2020-11-03 03:09:26.397 INF EXECUTE MMC CMD(CLS) START OBSERVATION FREE ROT.(300) 2020-11-03 03:09:26.398 INF ACCEPT MMC 2020-11-03 03:09:39.732 INF EXECUTE MMC CMD(OPN) STOP/NEXT STOP/HALT Window Close 2020-11-03 03:09:39.732 INF EXECUTE MMC CMD(OPN) 2020-11-03 03:09:39.733 INF ACCEPT MMC ----- Execute LOCAL 2020-11-03 03:09:49.517 INF END END MMC XZ. EL. Correct... _ 😐 🗙 MMC 2020-11-03 03:09:57.584 INF END END MMC 2020-11-03 03:10:21.769 INF EXECUTE MMC CMD(CLS) ----- COSMOS Manual Command ----dA7 dEL 2020-11-03 03:10:21.769 INF EXECUTE MMC CMD(CLS) 2020-11-03 03:10:21.769 INF ACCEPT MMC Return 2.9 5.5 Manual 2020-11-03 03:10:28.836 INF END END MMC FIN COSMOS 2020-11-03 03:10:32.401 INF EXECUTE MMC CMD(0PN) Quick Look : 0.0 0.0 2020-11-03 03:10:32.401 INF EXECUTE MMC CMD(OPN) Observation: IDLE (csv20/effic) 2020-11-03 03:10:32.401 INF ACCEPT MMC Atmosphere : 205.3 0.0 2020-11-03 03:10:41.476 INF Information: EXECUTE MMC CMD(OPN) END END MMC 2020-11-03 21:04:37.832 INF manager WARN :STRONG WIND(15.2m/s>15m/s) XY,Col,... : -20.4615.8 2020-11-03 23:10:29.929 INF manager WARN :STRONG WIND(15.8m/s>15m/s) 2020-11-03 23:12:30.675 INF manager WARN :STRONG WIND(15.2m/s>15m/s) Satellite : 0.0 0.0 2020-11-03 23:15:32.027 INF manager WARN :STRONG WIND(16.9m/s>15m/s) 2020-11-03 23:29:38.032 INF manager WARN :STRONG WIND(15.1m/s>15m/s) Thermal D. : 0.0 0.0 ASP.&AZrail: 0.0 0.0 ъ AZ. EL. Correction (arc... Work Station COSMO. LOCAL CONTROLLER .. MERGE MONITOR (mr. COSMOS MONITOR OBSERVATION INFOR Mirror [Terminal] MMC EXECUTE PANEL Weather Alert





Rules for the Operation at the End of Observations

- Basically, set set the antenna at zenith (El=90d)
- However, if snowfall is predicted for even one hour in the weather forecast between the end of the observation and the next observation, the observers must park the antenna at Az= "135d" and El=11d. Set the antenna to STBY.
- The last observers on Saturday morning (or Friday night) must park the antenna at Az= "135d" and El=11d. Set the antenna to STBY.



On-site Observation at Nobeyame

- Primary observing mode is a remote operation
- However, the observatory will allow you to visit Nobeyama only if you accept the conditions
 - -Three observers or less at the same time, but do not observe alone at night (17:00-9:00 JST)
 - -No travel support
 - –No accommodation arrangement, please book a hotel room by yourself
 - -No transportation support, use a rental car or your own car
 - –Please do not come to our observatory if you have a fever or other symptoms of COVID-19 infection





This season is the last for NRO Open-use

Thank you for using the NRO open-use for 40 years